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SURVEILLANCE

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Routine Infection Control Surveillance in Long Term Care

The primary purpose of **infection control surveillance** is the collection of **information for action**.¹ It is more than just evaluation of laboratory reports, including cultures. Infection control includes routine surveillance of residents, surveillance of staff, and surveillance of the environment. This may be accomplished using the following guidelines.

Epidemiologic Aspects

1. According to the Missouri Division of Aging rules, all long term care facilities must have infection control policies which are made evident to all new employees at time of orientation.² [13 CSR 15-14.042(20) and 13 CSR 15-15.042(18) See Appendix C.] The Occupational Safety and Health Administration (OSHA) mandates policies on surveillance and recordkeeping of exposures to blood and body fluids included under Universal Precautions (see other potentially infectious materials) and infections from bloodborne pathogens.³ In addition, infection control experts recommend that long term care facilities (LTCF's) have active, effective infection control programs which include weekly surveillance for nosocomial infections and multiply resistant organisms.^{1,4} (See "Glossary of Infection Control Terms and Definitions," Appendix B.) Besides identification of such infections, a line listing should be kept which includes pertinent information regarding residents with infections (Figure 2.1-1).
2. A facility's surveillance policies and procedures should be reviewed and updated on a yearly basis to assure appropriateness and effectiveness in reducing specific body site infections or number of infections with specific organisms.
3. A facility's surveillance system must include the reporting of infectious diseases as required by the Missouri Department of Health. (See "Reporting Rule, Appendix I. See Figure 2.1-2 for a sample reporting form.)
4. A facility's surveillance system should include monitoring for appropriate antibiotic use. A positive culture in a person without clinical symptoms rarely requires treatment with antibiotics. (See Figure 2.1-3 for a sample monitoring form.)
5. Long term care facilities should request by contract or policy that their laboratory notify the Director of Nursing (DON) or his/her designee of all positive cultures with a multiply resistant organism or laboratory data indicative of a reportable disease. This will permit the facility to track the residents with certain organisms. Tracking a multiply resistant organism or reportable disease includes keeping records of dates when the resident changes rooms or roommates and also monitoring resident activities or exposures to others.

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6. It is important to track and follow trends of infection data related to both residents and staff on a monthly basis. This information should then be presented to the appropriate committee on at least a quarterly basis.¹ Rates should be calculated by using resident days or average daily census for the surveillance period (such as a month, quarter or year) as the denominator. Examples of tools used in data calculation and presentation are included in Figures 2.1-4, 2.1-5 and 2.1-6.
7. Outbreak investigation should be performed as outlined in Section 7. Infectious Disease Outbreaks.

Resident Aspects

1. Assessment of all residents for any/all changes in symptoms or conditions which may be indicative of an infection should be performed on an ongoing basis; i.e., clinical observation, house reports, chart and/or Kardex review, culture reports.¹ Any change in the resident's condition is to be reported to the private physician.
2. Indications of infection in the elderly may vary from those seen in a younger more healthy population.⁵ Elderly persons often have a lower body temperature, so an increase in temperature from that which is normal for the resident may be an indication of infection. Other conditions that may indicate an infection in the elderly are:
 - a. Presence of delirium (acute confusional state)
 - b. Rapid major change (worsening) in function in activities of daily living (ADL's)
 - c. Loss of appetite, new or worsening urinary incontinence, cough, increased respiratory rate, falls, or loose stools
 - d. A decline in blood pressure or a rise in pulse rate
 - e. A fall with no previous history of falling
3. Routine culturing of any resident or group of residents should not be performed unless one of the following occurs:
 - a. Resident has clinical signs or symptoms. A culture done under these circumstances will be useful in treating the resident.⁶
 - b. In an outbreak situation, as outlined in Section 7. Infectious Disease Outbreaks.
4. Routine culturing of **asymptomatic** residents at admission or prior to admission is not recommended. Residents who may be either colonized or infected with a disease producing organism(s) can generally be cared for in the long term care setting by using appropriate infection control practices. Request of culture results from the transferring facility is appropriate upon transfer to assist the receiving facility in understanding clinical history and assure appropriate resident room placement.
5. Assessment of the resident at the time of admission to the facility for communicable diseases and a history of immunization. This will assure recognition of communicable

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diseases that will require special precautions and assure the resident is up-to-date on recommended adult immunizations. (See Section 5. Immunizations.)

6. In accordance with Department of Health rule 19 CSR 20-20.100 (See Appendix E), all residents new to long term care who do not have documentation of a previous skin test reaction $\geq 10\text{mm}$ or a history of adequate treatment of tuberculosis infection or disease, should have the initial test of a Mantoux PPD two-step test to rule out tuberculosis within one month prior to or one week after admission. Thereafter, the resident's tuberculin status is retested only following exposure to a person diagnosed with infectious tuberculosis or when clinical symptoms warrant further investigation.

Employee Aspects

1. All new employees should have a baseline health assessment, including a review of their immunization status and history of relevant past or present infectious diseases. The past history of infectious diseases should include chickenpox, measles, hepatitis, skin boils and bacterial diarrhea. Use of screening cultures is rarely indicated.
2. All new employees and volunteers shall have a two-step tuberculin skin test using the Mantoux method unless the employee reports a history of a positive tuberculin skin test. Annual tuberculosis evaluations of employees and volunteers shall be performed. Individuals with a positive tuberculin skin test should be evaluated in accordance with Guidelines for Screening for Tuberculosis in Long Term Care Facilities issued in 1995 by the Missouri Department of Health, Section of Vaccine Preventable and Tuberculosis Disease Elimination. (See Section 9. Tuberculosis Control.)

Note: A tine test is not an acceptable method of evaluation for tuberculosis in Missouri.

3. Follow-up of an exposure to an infectious disease or substance shall be provided in accordance with current public health guidelines and the OSHA Bloodborne Pathogen Standard of 1991.
4. Each facility should have policies for the ongoing monitoring of employees for infections. Such monitoring should include observation and self-reporting. (See Employee Health in Subsection 3.2 Implementing the Body Substance Precautions System.)

Environmental Surveillance

Walking rounds to observe environmental conditions should be done on a regular basis or at least twice monthly. Observations should be made of equipment decontamination, cleaning procedures in bathroom/tub areas, physical therapy, medication/treatment rooms, kitchen and laundry areas. Observations should be made for handwashing, availability of soaps and paper

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towels, handling of sharps/infectious waste, care of resident supplies for skin care, catheter care, feeding solutions, etc. A clipboard with defined criteria can be used to check areas where changes need to be made or training needs to be done. (See Figures 2.1-7 and 2.1-8 for sample forms for recording environmental observations.)

References:

1. Smith PW. Consensus conference on nosocomial infections in long-term care facilities. *Am J Infect Control* 1987;15:97-100.
2. Division of Aging, Missouri Department of Social Services. 13 CSR 15-14.042 Administration and Resident Care Requirements for New and Existing Intermediate Care and Skilled Nursing Facilities and 13 CSR 15-15.042 Administrative, Personnel and Resident Care Requirements for New and Existing Residential Care Facilities I and II. Code of State Regulations, September 30, 1998.
3. Occupational Safety and Health Administration (OSHA). Department of Labor. Occupational exposure to bloodborne pathogens; Final rule. 29 CFR Part 1910.1030. *Federal Register*, December 6, 1991.
4. Boyce JM. Methicillin-resistant *Staphylococcus aureus*: Detection, epidemiology, and control measures. *Infectious Disease Clinics of North America* 1989;3:901-913.
5. Morris JN, Lipsitz LA, Murphy K, Belleville-Taylor P. *Quality Care In the Nursing Home*. CV Mosby 1997.
6. Kauffman CA, Bradley SF, Terpenning MS. Methicillin-resistant *Staphylococcus aureus* in long-term care facilities. *Infect Control Hosp Epidemiol* 1992;11:600-603.
7. Smith PW, Rusnak PG. APIC guideline for infection prevention and control in long-term care facilities. *Am J Infect Control* 1991;19:198-215.

INFECTION CONTROL LINE LISTING

UNIT _____ MONTH _____

ID#	RESIDENT NAME	AGE	SEX	ROOM	INFECTION SITE						DATE*/LAB	DATE/	PREDISPOSING	DATE/	APPROP**		RESOLVED	
					URI	LRI	UTI	SKIN	GI	OTH					YES	NO	YES	NO
1																		
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
TOTALS																		

TOTAL RESIDENT DAYS FOR MONTH _____

* DATE OF SPECIMEN COLLECTION

**APPROPRIATE = YES, ORGANISM SENSITIVE TO ANTIBIOTIC

Figure 2.1-1

Figure 2.1-2


**MISSOURI DEPARTMENT OF HEALTH
DISEASE CASE REPORT**

REPORT TO LOCAL PUBLIC HEALTH AGENCY

(INSTRUCTIONS ON REVERSE SIDE)

DATE RECEIVED BY LOCAL HEALTH AGENCY

A. CASE IDENTIFICATION (ALL DISEASES)

NAME (LAST, FIRST, M.I.)		DATE OF BIRTH (MO/DAY/YR)	AGE	TELEPHONE NUMBER ()
ADDRESS (STREET OR RFD, CITY, STATE, ZIP CODE)			MEDICAL RECORD NUMBER	GENDER <input type="checkbox"/> M <input type="checkbox"/> F
COUNTY OF RESIDENCE	PATIENT DIED OF THIS ILLNESS <input type="checkbox"/> YES <input type="checkbox"/> NO	PARENT OR GUARDIAN IF A MINOR		
PATIENT EMPLOYED? <input type="checkbox"/> YES <input type="checkbox"/> NO	SCHOOL/DAY CARE/WORKPLACE AND OCCUPATION		ETHNIC ORIGIN <input type="checkbox"/> HISPANIC <input type="checkbox"/> NOT HISPANIC	
RACE <input type="checkbox"/> BLACK <input type="checkbox"/> ASIAN/PACIFIC ISLANDER <input type="checkbox"/> MIXED <input type="checkbox"/> WHITE <input type="checkbox"/> AMERICAN INDIAN <input type="checkbox"/> OTHER (SPECIFY) _____	PATIENT'S COUNTRY OF ORIGIN		DATE ARRIVED IN U.S.A.	
WAS PATIENT HOSPITALIZED? <input type="checkbox"/> YES <input type="checkbox"/> NO	ARRIVED BY AMBULANCE? <input type="checkbox"/> YES <input type="checkbox"/> NO	OTHER CASES? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNKNOWN		
RESIDE IN NURSING HOME? <input type="checkbox"/> YES <input type="checkbox"/> NO	NOSOCOMIAL INFECTION? <input type="checkbox"/> YES <input type="checkbox"/> NO			
NAME OF HOSPITAL/NURSING HOME		ADDRESS		

B. PERSON OR AGENCY REPORTING

NAME	DATE OF REPORT (MO/DAY/YR)	TELEPHONE NUMBER ()
ADDRESS	<input type="checkbox"/> PHYSICIAN <input type="checkbox"/> OUTPATIENT CLINIC <input type="checkbox"/> LABORATORY <input type="checkbox"/> HOSPITAL <input type="checkbox"/> PUBLIC HEALTH CLINIC <input type="checkbox"/> SCHOOL	
ATTENDING PHYSICIAN NAME	ADDRESS	TELEPHONE NUMBER ()

C. DISEASE

DISEASE	PLEASE INCLUDE CONFIRMATORY LABORATORY DATA (ATTACH COPY IF AVAILABLE)		
	DATES	TYPE OF TEST	RESULT
			LAB NAME/LOCATION
DATE OF ONSET (MO/DAY/YR)	DATE OF DIAGNOSIS (MO/DAY/YR)	LEAD <input type="checkbox"/> VENOUS <input type="checkbox"/> CAP	COMMENTS

PLEASE COMPLETE THE APPROPRIATE SECTION FOR THE DISEASE BEING REPORTED

SEXUALLY TRANSMITTED DISEASES	D. SYPHILIS	<input type="checkbox"/> GONORRHEA <input type="checkbox"/> CHLAMYDIA (CHECK ABOVE BOXES AS APPROPRIATE)	DATE	TEST	RESULTS	HAS PATIENT BEEN TREATED? <input type="checkbox"/> YES <input type="checkbox"/> NO
	<input type="checkbox"/> PRIMARY (CHANCER PRESENT) <input type="checkbox"/> SECONDARY (SKIN LESIONS, RASH, ETC.) <input type="checkbox"/> EARLY LATENT (ASYMPTOMATIC, LESS THAN 1 YEAR) <input type="checkbox"/> LATE LATENT (OVER 1 YEAR DURATION) <input type="checkbox"/> NEUROSYPHILIS <input type="checkbox"/> CARDIOVASCULAR <input type="checkbox"/> CONGENITAL <input type="checkbox"/> OTHER	<input type="checkbox"/> ASYMPTOMATIC <input type="checkbox"/> UNCOMPLICATED UROGENITAL (URETHRITIS, CERVICITIS) <input type="checkbox"/> SALPINGITIS (PID) <input type="checkbox"/> OPHTHALMIA/CONJUNCTIVITIS <input type="checkbox"/> OTHER (ARTHRITIS, SKIN LESIONS, ETC.)				DATE(S) OF TREATMENT
	TREATMENT NOT INDICATED BECAUSE: <input type="checkbox"/> PREVIOUS ADEQ. TREATMENT <input type="checkbox"/> FALSE POSITIVE				TYPE AND AMOUNT OF TREATMENT	
	DATE OF PREVIOUS TREATMENT: _____					
	PREV. DISEASE/STAGE PLACE:					

ENTERIC DISEASES OR HEPATITIS	E. ENTERIC AND PARASITIC DISEASES AND HEPATITIS A		TREATMENT	F. HEPATITIS <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> PRENATAL <input type="checkbox"/> OTHER	
	CHECK BELOW IF PATIENT OR MEMBER OF PATIENT'S HOUSEHOLD (HHLD):	PATIENT YES NO UNK	HHLD MEMBER YES NO UNK	DRUG	(CHECK ALL TESTS PERFORMED)
	IS A FOOD HANDLER				JAUNDICED: <input type="checkbox"/> YES <input type="checkbox"/> NO
	ATTENDS OR WORKS AT A DAY CARE CENTER				TEST POS NEG HAV-IgM HBcAb-IgM HBsAg HBsAb HBcAb Hep C
	IS A HEALTH CARE WORKER				JAUNDICE ONSET DATE: _____
					CARRIER? <input type="checkbox"/> YES <input type="checkbox"/> NO
					ALT AST

TUBERCULOSIS	G. <input type="checkbox"/> DISEASE OR <input type="checkbox"/> INFECTION	X-RAY <input type="checkbox"/> NORMAL (DATE) _____ <input type="checkbox"/> ABNORMAL (DATE) _____	BACTERIOLOGY	TREATMENT	DOSAGE
	TUBERCULIN TEST (DATE)	(CHECK ONE) <input type="checkbox"/> STABLE <input type="checkbox"/> CAVITARY <input type="checkbox"/> WORSENING <input type="checkbox"/> NONCAVITARY <input type="checkbox"/> IMPROVING <input type="checkbox"/> NOT DONE <input type="checkbox"/> UNKNOWN	TYPE OF SPECIMEN	<input type="checkbox"/> ISONIAZID	
	RESULTS (MM INDURATION)		SMEAR (DATE) _____ POS NEG PEND-ING CULTURE (DATE) _____ <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> ETHAMBUTOL	
	TYPE OF TEST (CHECK ONE) <input type="checkbox"/> MANTOUX (5TU-PPD) <input type="checkbox"/> MULTIPLE PUNCTURE DEVICE <input type="checkbox"/> NOT DONE	PREVIOUS TB DISEASE <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	REPORT DATE <input type="checkbox"/> NOT STATED OR UNKNOWN <input type="checkbox"/> NOT DONE IF CULTURE POSITIVE: <input type="checkbox"/> M. TUBERCULOSIS <input type="checkbox"/> ATYPICAL MYCOBACTERIA (SPECIFY) _____	<input type="checkbox"/> PYRAZINAMIDE	
				<input type="checkbox"/> RIFAMPIN	
				<input type="checkbox"/> OTHER (SPECIFY)	
				DATE TREATMENT STARTED	

Antibiotic Usage Report

Unit/ Hall _____

Month: _____ Year: _____

Room #	Resident	Antibiotic ***	Dose	Start/ Stop dates	Date of culture	Is organism sensitive to antibiotic? ***	Clinical signs of infection present*?	Infection resolved?	Physician	Comments

* See back

*** Chart review of residents in line listing that remained on antibiotic when criteria for infection not met OR culture results evidence antibiotic prescribed not effective against organism.

Upper Respiratory Infection

- **Common Cold**—Resident must have 2 or more of the following symptoms: runny nose or sneezing, stuffy nose (i.e., nasal congestion), sore throat or hoarseness or difficulty swallowing, dry cough, swollen or tender glands of the neck (i.e., cervical lymphadenopathy). Symptoms must be acute and not related to allergy (seasonal) or medication. Fever is not required but does not exclude diagnosis.
- **Ear**—Diagnosis by a physician of any ear infection or any new drainage from one or both ears.
- **Mouth**—Diagnosis by physician or dentist of any mouth infection.
- **Sinusitis**—Diagnosis by physician.
- **Influenza-like Illness**—Fever and TWO or more of the following: chills, headache or eye pain, myalgias (muscle aching), malaise or loss of appetite, sore throat, dry cough. Symptoms must be acute, usually during flu season (in Missouri, November through March). When this definition is met it takes precedence over others.

Lower Respiratory Infection

- **Pneumonia**—Interpretation by a radiologist of a chest x-ray as demonstrating pneumonia, probable pneumonia, or presence of an infiltrate with a compatible clinical syndrome.
- **Other Lower Respiratory**—THREE or more of the following: new or increased cough, new or increased sputum production, fever, pleuritic chest pain, new physical finding on chest exam (i.e., rales, rhonchi, wheezes, bronchial breathing) and one or more of: new shortness of breath, increased respiratory rate >25/per minute, change in mental status, or change in functional status. Symptoms must be acute, either no chest x-ray is done or x-ray does not meet the above criteria for pneumonia.

Urinary Tract Infection

- **Without Catheter**—THREE or more of the following: fever or chills, new burning pain on urination or frequency or urgency, flank or suprapubic pain or tenderness, change in character of urine (visual, or by smell, or by lab testing), change in mental or functional status, including new or worse incontinence. Symptoms must be acute, urine culture must be appropriately collected and processed, and the resident should not be receiving antibiotics at the time the urine culture is taken.
- **With Catheter**—TWO or more of the following: fever or chills, suprapubic pain or tenderness, change in mental or functional status. In the catheterized resident, no other source for the fever should be suspected or identified. Asymptomatic bacteriuria may be recorded separately.

SKIN

Pus is present at a wound, skin or soft tissue site or FOUR or more of the following: fever or worsening mental/functional status (and/or, at the site of infection, new or increasing: heat, redness, tenderness, swelling, or serous drainage). Fungal infection—maculopapular rash (abnormally colored, usually red, flat or slightly raised areas of skin in varying sizes) and physician diagnosis or laboratory confirmation. Herpes simplex (cold sores) or Varicella Zoster (herpes zoster/shingles) vesicular rash (blister like, skin lesions containing watery fluid) and physician diagnosis or laboratory confirmation. The latter are counted as nosocomial in only rare situations, (i.e., where herpes simplex occurs for the first time in a lifetime). Varicella zoster is not considered nosocomial even when subsequent to a first time chickenpox in a long term care resident.

Formula (example) for identifying over prescribing.

residents on antibiotics minus # residents with infections (meet above criteria) equals _____.

Residents not meeting criteria for infection minus residents taken off antibiotics equals _____.

An Example

Incidence Rate and Number () of Body Site Infections per Resident Days by Unit ANY Long Term Care Facility Month, Year

Wing, Ward or Floor	Respiratory	Eye/Ear/ Mouth	Wound/ Skin	Gastrointestinal	Urinary Tract	Bloodstream/ IV's	Total
Residential - average daily census - 20							
Current	8.06* (5/620)	3.2 (2/620)	1.6 (1/620)	0.0 (0/620)	0.0 (0/620)	0.0 (0/620)	12.9 (8/620)
Baseline [§]	1.6 (1/620)	0.0 (0/620)	0.0 (0/620)	0.0 (0/620)	0.0 (0/620)	0.0 (0/620)	1.6 (1/620)
Floor 1 - East Wing average daily census - 40							
Current	12.9 (16/1240)	3.2 (4/1240)	2.4 (3/1240)	0.8 (1/1240)	1.6 (2/1240)	0.8 (1/1240)	8.9 (11/1240)
Baseline	1.6 (2/1240)	0.8 (1/1240)	1.6 (2/1240)	0.8 (1/1240)	1.6 (2/1240)	0.4 (.5/1240)	6.9 (8.5/1240)
Floor 1 - West Wing average daily census - 28							
Current	12.7 (11/868)	3.5 (3/868)	5.8 (5/868)	2.3 (2/868)	4.6 (4/868)	2.3 (2/868)	32.3 (28/868)
Baseline	2.5 (3/1209)	0.76 (.6/868)	3.5 (3/868)	2.3 (2/868)	3.5 (3/868)	0.9 (.8/868)	14.3 (12.4/868)

*Incidence rate = $\frac{\text{\# of new nosocomial infections occurring in one month}}{\text{number of resident days in the month}} \times 1000$

$$\begin{array}{c}
 \downarrow \\
 \frac{5 \text{ new respiratory infections}}{20 \text{ (average daily census per unit) } \times 31 \text{ (days in month)}} \times 1000 \\
 \downarrow \\
 \frac{5}{20 \times 31} = \frac{5}{620} \times 1000 = 8.06 \text{ respiratory infection per 1000 resident days}
 \end{array}$$

[§]Baseline infection rate = the average rate of infections per body site in past 1-5 years.

$$\begin{array}{ccc}
 \frac{\text{Add the number of new infections for each month in one year}}{\text{Divide by 12}} = \text{average monthly infections} & & \frac{\text{Add the number of resident days for each month in one year}}{\text{Divide by 12}} = \text{average monthly resident days} \\
 \searrow & & \swarrow \\
 \frac{\text{Average monthly infections}}{\text{Average resident days}} \times 1000 = \text{Baseline rate}
 \end{array}$$

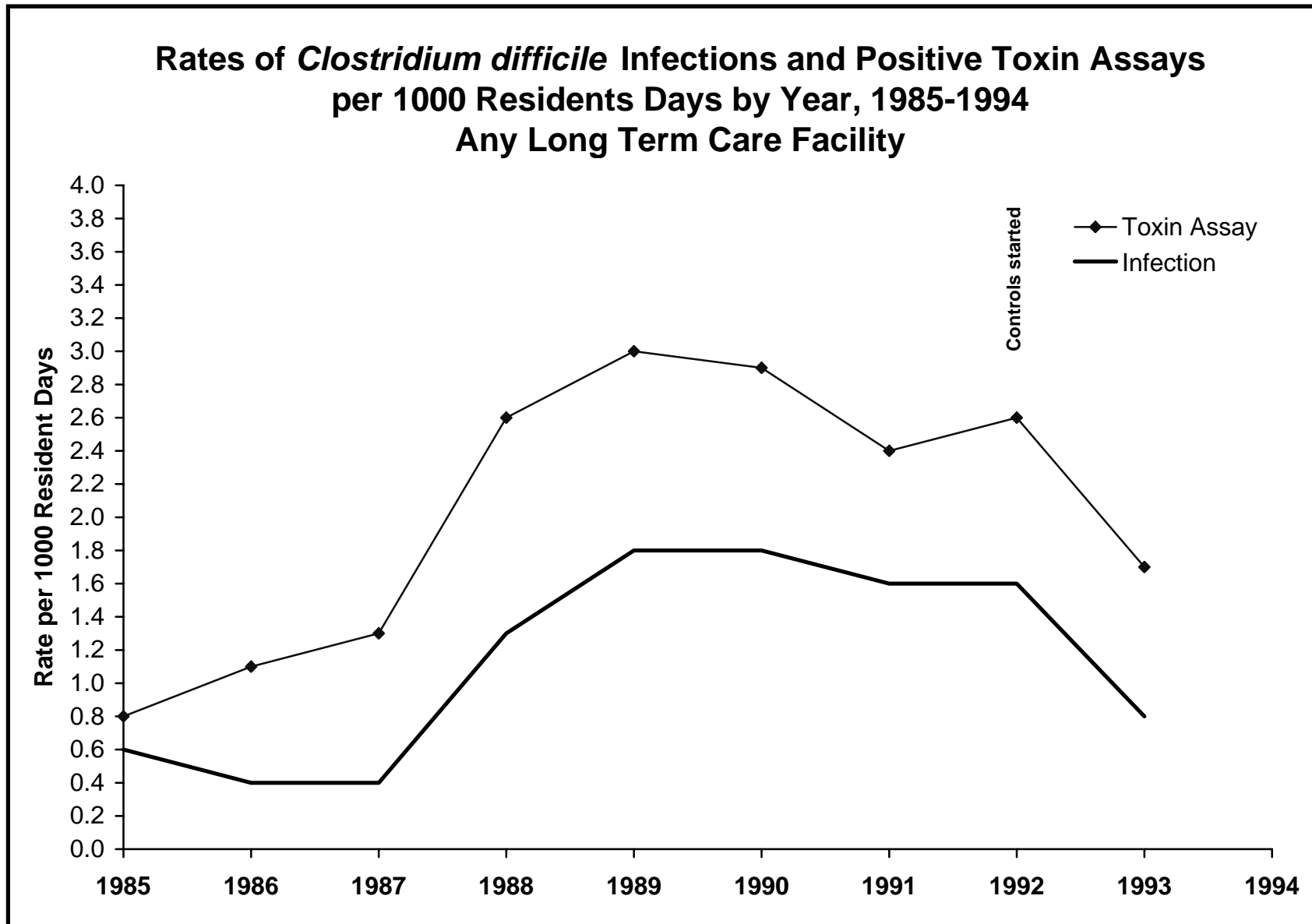


Figure 2.1-5

**Incidence Rates of MRSA Nosocomial Colonization and Infection
by Nursing Units for One Year
Any Long Term Care Unit, Year**

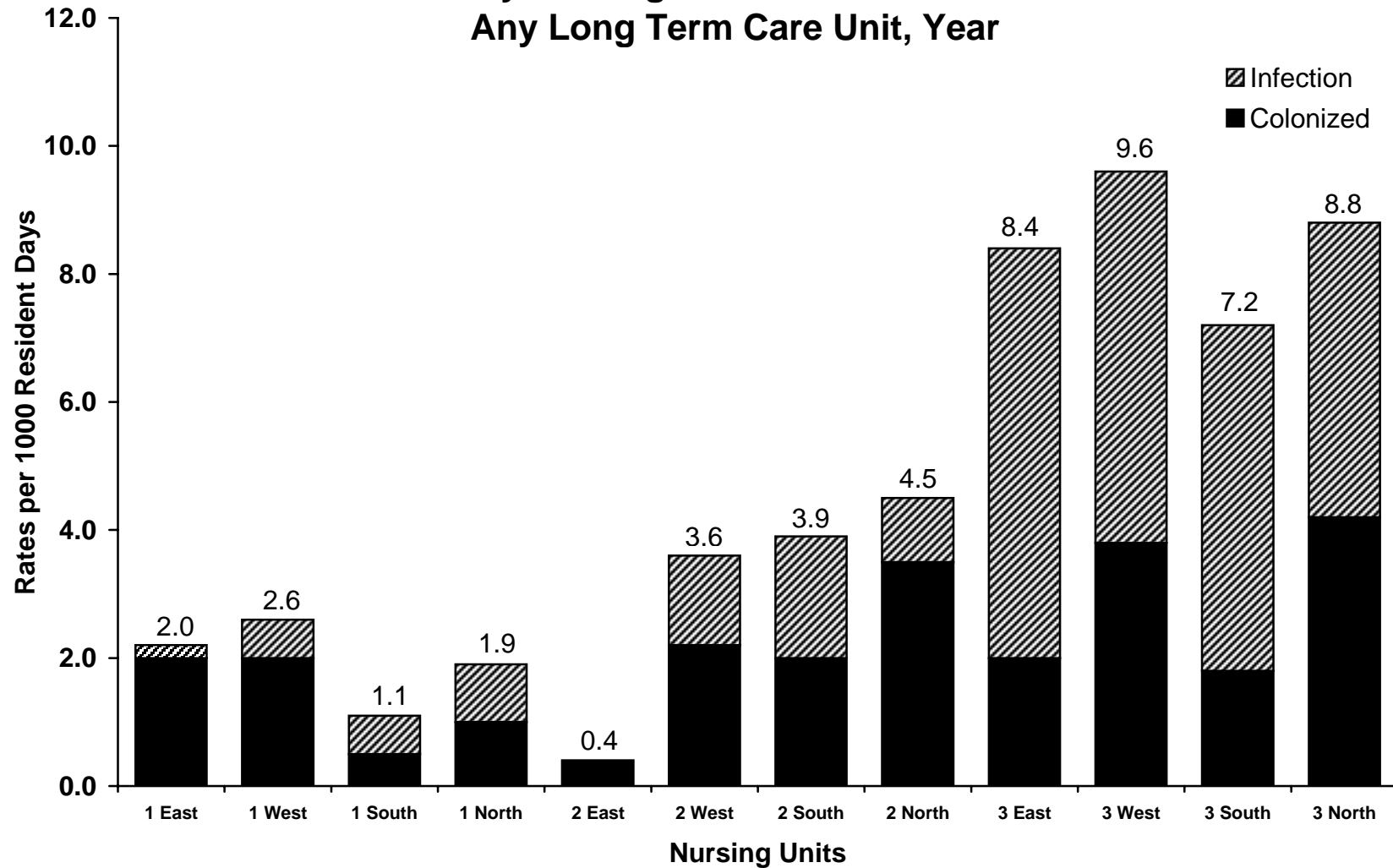


Figure 2.1-6

Environmental Rounds Surveillance Form

Date

Unit/Wing/Area Inspected

Reviewer Name

Area/Item Inspected	Satisfactory	Unsatisfactory	Comments	Action Required
Patient Care Equipment Clean: I.V. poles Overhead table Telephone Side rails Other				
Floors Clean				
Floors free of debris				
Bathroom clean: Toilet seat Sink and faucet handle(s) Towels				

Figure 2.1-7

Area/Item Inspected	Satisfactory	Unsatisfactory	Comments	Action Required
Use of PPE: Gloves Gowns Masks Eye Goggles/Shields				
Door Closed When Stop Alert Sign Present				
Handwashing: Between patients After glove removal After using bathroom				
Soap & Paper Towels Present				
Sharps/Needle Disposal				
Disposal of Waste				
Management/ Handling of Patient Care Supplies				

Area/Item Inspected	Satisfactory	Unsatisfactory	Comments	Action Required
Other				

Figure 2.1-8

**Maintaining Infection Control Practices
A Checklist for Housekeeping Practices**

Item	Yes	No	NA	Comments
Does the facility have an outside commercial source that cleans?	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	_____
Is the resident area cluttered to a point that it interferes with staff function?	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	_____
Are bed linen clean and in good condition?	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	_____
Are there individual closet spaces with accessible shelves and are they clean?	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	_____
Are the resident bathrooms clean and sanitary?	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	_____
Are the sinks cleaned?	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	_____
Are there soap dispensers present for staff use in each resident's room?	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	_____
Are those soap dispensers adequately filled and in working order?	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	_____
Are there paper towel dispensers present for staff use in each resident's room?	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	_____
Are those paper towel dispensers adequately filled?	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	_____
Are the shower areas clean and sanitary?	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	_____
Are the hallways cluttered?	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	_____
Are the walls clean and/or spot checked daily?	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	_____
Is resident trash removed daily?	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	_____
Is there visible infectious waste stored in the resident's room?	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	_____

Item	Yes	No	NA	Comments
Are venetian blinds, curtains or drapes clean?	[]	[]	[]	_____
Are there body fluids on the floor?	[]	[]	[]	_____
Are there bed linens on the floors?	[]	[]	[]	_____
Are there written protocols for mopping floors?	[]	[]	[]	_____
How often is the detergent/disinfectant changed in the mop bucket?	[]	[]	[]	_____
Are clean mops used at the beginning of each work day?	[]	[]	[]	_____
Do housekeepers know how to pick up needles or sharps from the floor?	[]	[]	[]	_____
Do housekeepers know the procedure of what to do if they are stuck with a needle or cut with a sharp?	[]	[]	[]	_____
Do housekeepers know the procedure for decontamination of blood on floors or carpets?	[]	[]	[]	_____
Have the housekeepers been offered the hepatitis B vaccine?	[]	[]	[]	_____
What is the percentage of compliance for the hepatitis B vaccine among the housekeeping staff?	_____ %			
Are the material safety data sheets (MSDS) available?	[]	[]	[]	_____
Do housekeepers use goggles or face shields when preparing chemicals?	[]	[]	[]	_____
Is there an eye wash station near area (within 100 feet) where chemicals are prepared?	[]	[]	[]	_____

Item	Yes	No	NA	Comments
Are there visible pests present?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Name of pest control company: _____				
Are there appropriate screens for doors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there appropriate screens for windows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is there a written infection control procedure manual for housekeeping?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Has this procedure manual been updated in the past 12 months?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Did the infection control person have any input in developing this procedure manual?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Type of chemical (formulation) used for general cleaning: _____				
EPA#: _____				
Type of gloves used by housekeepers: _____				
How are mops cleaned: _____				
How are mops dried: _____				
List the in-service educational seminars that housekeepers have attended in the past year with title and dates:				
Title		Dates		
_____		_____		
_____		_____		
_____		_____		
_____		_____		
Name of infectious waste transporter: _____				
Name of director of housekeeping: _____				
How long at this position? _____				
Formal training? _____ Yes _____ No				
If yes, where: _____				

Immediate Recommendations:

Infection Control/Quality Assurance Recommendations:

Other Factors:

Person performing audit:

_____ Date: _____

Signature of housekeeper:

_____ Date: _____

Signature of infection control practitioner:

_____ Date: _____

Form provided courtesy of St. Joseph Health Center, Kansas City, MO.

SURVEILLANCE

Definitions of Body Site Infections in Long Term Care Facilities

Site/Infection	Criteria	Comments
Respiratory Tract Common Cold	Two or more of the following: <ul style="list-style-type: none"> • Runny nose or sneezing • Stuffy nose, hoarseness or difficulty swallowing • Dry cough • New swollen or tender glands in the neck 	Symptoms must be acute and not allergy related. Fever not required, but does not exclude diagnosis.
Sinusitis	Diagnosis by a physician or practitioner.	
Influenza-Like Illness	Fever and two or more of the following: <ul style="list-style-type: none"> • Chills • Headache or eye pain • Myalgias (muscle aches) • Sore Throat • Dry Cough 	Symptoms must be acute. Usually during influenza season (in Missouri—generally November to March).
Pneumonia	Interpretation by a radiologist of a chest x-ray as demonstrating pneumonia, probable pneumonia, or the presence of an infiltrate with a compatible clinical syndrome.	
Other Lower Respiratory Tract Infection	Three or more of the following: <ul style="list-style-type: none"> • New or increased cough • New or increased sputum production • Fever • Pleuritic chest pain • New physical findings on chest exam (rales, rhonchi, wheezes, bronchial breathing) One or more of the following: <ul style="list-style-type: none"> • New shortness of breath • Increased respiratory rate (>25/mm) • Change in mental status • Change in functional status 	Symptoms must be acute. Either no chest x-ray done, or x-ray does not meet the above criteria for pneumonia.

Definitions of Body Site Infections in Long Term Care Facilities (continued)

Site/Infection	Criteria	Comments
Urinary Tract Symptomatic UTI	<p>Resident without catheter three or more of the following:</p> <ul style="list-style-type: none"> • Fever or chills • New burning pain on urinating, or frequency or urgency • Flank or suprapubic pain or tenderness • Change in character of urine (visual, or by smell, or by lab testing) • Change in mental or functional status, including new or worse incontinence <p>Resident with catheter two or more of the following:</p> <ul style="list-style-type: none"> • Fever or chills • Flank or suprapubic pain or tenderness • Change in character of urine • Change in mental or functional status 	<p>Symptoms must be acute.</p> <p>For the catheterized resident, no other source of fever is present.</p>
Asymptomatic Bacteriuria	Urinalysis showing >100,000 bacterial colonies and resident has no signs or symptoms of UTI	May be recorded separately
GI Tract Gastroenteritis	<p>Two or more loose or watery stools <i>above what is normal</i> for the resident within 24 hour period</p> <p style="text-align: center;">OR</p> <p>Two or more episodes of vomiting within a 24 hour period</p> <p style="text-align: center;">OR</p> <p>Stool culture positive for a pathogen (<i>Salmonella</i>, <i>Shigella</i>, <i>Campylobacter</i> species or <i>Clostridium difficile</i>)</p> <p style="text-align: center;">WITH</p> <p>A compatible clinical syndrome—one of the following:</p> <ul style="list-style-type: none"> • Nausea • Vomiting • Abdominal pain/tenderness • Diarrhea 	For the first two criteria, there must be no evidence of a non-infectious cause (e.g. for diarrhea: laxative, change in tube feeds or medication; for vomiting: change in medication, peptic ulcer disease)

Definitions of Body Site Infections in Long Term Care Facilities
(continued)

Site/Infection	Criteria	Comments
Skin Cellulitis/ Soft Tissue/ Wound	Pus is present at a wound, skin or soft issue site OR Four or more of the following: <ul style="list-style-type: none"> • Fever or worsening mental/functional status (and/or, at the site of infection, new or increasing) • Heat • Redness • Swelling • Tenderness • Serous drainage 	
Fungal Skin Infection	Maculopapular rash (abnormally colored, usually red, flat or slightly raised area of skin in varying sizes) AND Physician or practitioner diagnosis or laboratory confirmation	<ul style="list-style-type: none"> • No evidence of a non-infectious cause (e.g. allergy to new medication) • Other diagnoses of skin disease ruled out (i.e. scabies)
Herpes Simplex (Cold Sores) or Varicella Zoster (Herpes Zoster/ Shingles)	Vesicular rash (blister like skin lesions containing watery fluid) AND Physician or practitioner diagnosis or laboratory confirmation	Counted as nosocomial in rare situations (i.e., when herpes simplex occurs for the first time in a lifetime). Varicella zoster is not considered nosocomial even when subsequent to a first time chickenpox in a long term care resident.
Scabies	Undiagnosed macular (flat) or papular (slightly raised) rash different in color or texture OR Dry thickened, scaling skin with documented tracks OR Itching rash AND Physician or practitioner diagnosis or laboratory confirmation	<ul style="list-style-type: none"> • One or more residents or staff have laboratory confirmation (mite, egg or fecal pellet) • Several cases occurring within the same time frame and setting can be counted within an outbreak without laboratory confirmation provided

Definitions of Body Site Infections in Long Term Care Facilities
(continued)

Site/Infection	Criteria	Comments
Eye, Ear, Nose and Mouth Conjunctivitis	Pus appearing from one or both eyes for >24 hours. “Pink eye” (i.e., conjunctival redness, often with itching or pain), present for >24 hours.	No evidence of trauma (e.g. foreign body) or allergy as a cause.
Ear	Diagnosis by a physician or practitioner of any ear infection OR Any new drainage from one or both ears.	
Mouth (Peri-Oral) Includes Oral Candidiasis	Diagnosis by a physician, practitioner or a dentist of any mouth infection.	
Bloodstream Bloodstream	Two or more blood cultures are documented with the same organism OR A single blood culture is documented with an organism thought not to be a contaminant AND One of the following: <ul style="list-style-type: none"> • Fever or new hypothermia • Drop in systolic blood pressure of >30mm Hg over baseline • Change in mental or functional status. 	If the organism in the blood culture is <i>not</i> related to an infection at another site, it is considered a “Primary Bloodstream Infection”. If the organism in blood culture is related to an infection at another site, it is considered a “Secondary Bloodstream Infection”
Unexplained Febrile Episode	Documentation in the medical record of fever on 2 or more occasions at least 12 hours apart in any three-day period.	No known infectious or non-infectious cause for the fever (e.g. infection at any site, medication)

References:

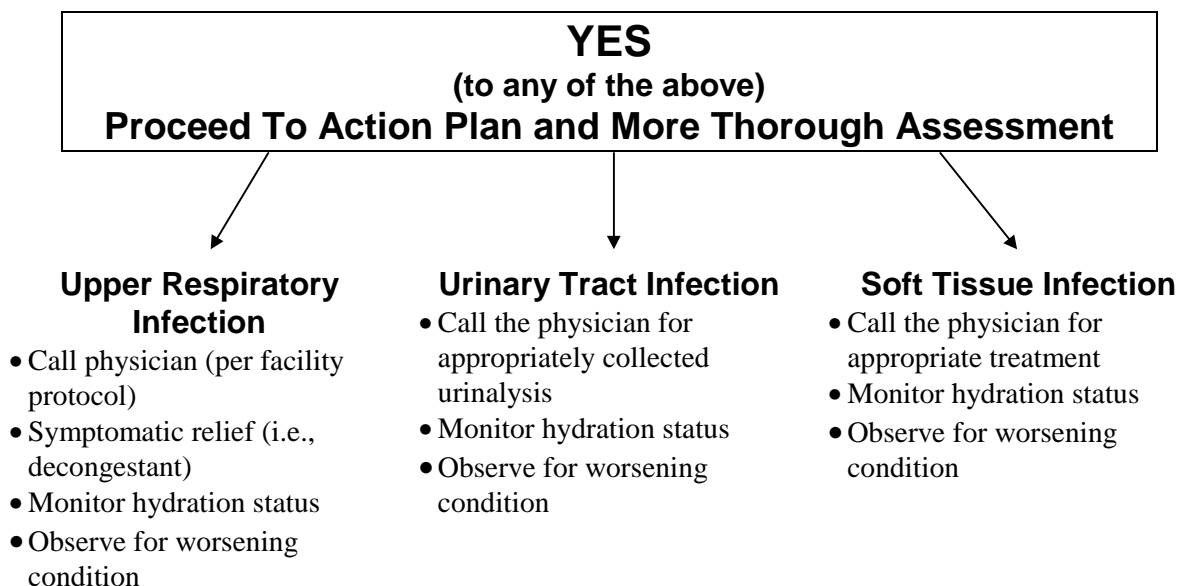
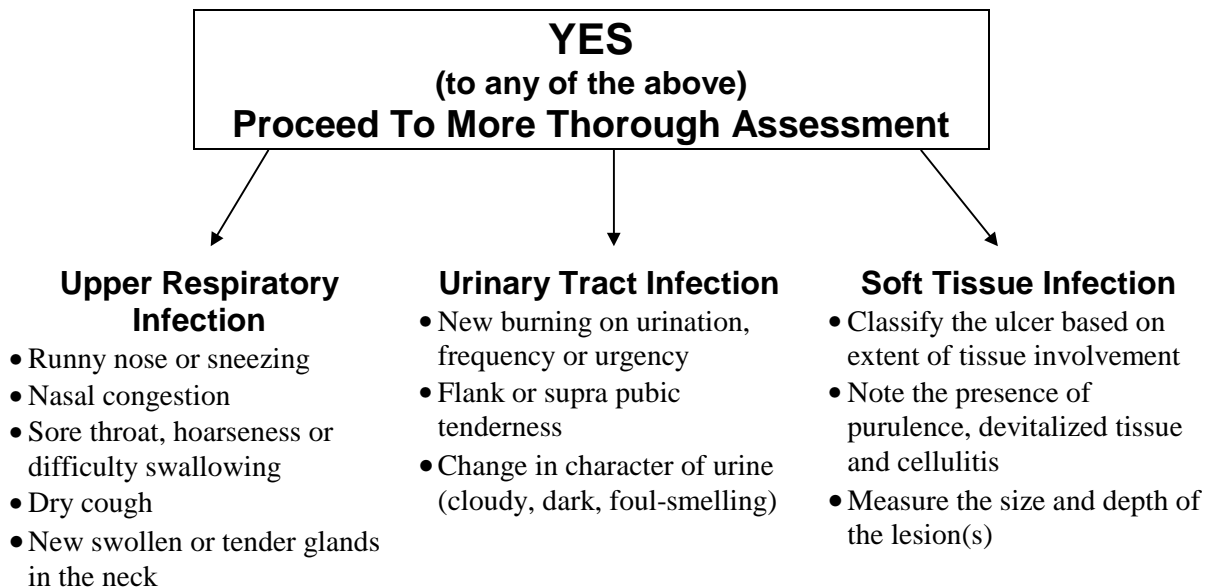
McGeer A, Campbell B, Emori TG, et al. Commentary. Definitions of infections for surveillance in long-term care facilities. Am. J Infect Control 1991;19:1-7.

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SURVEILLANCE

FREQUENT INDICATORS OF INFECTION IN THE ELDERLY

- ⇒ The presence of delirium (acute confusional state)
- ⇒ A rise in body temperature of at least 2.4°F from the baseline, or a body temperature higher than 100°F
- ⇒ Rapid major change (worsening in functional activities of daily living)
- ⇒ Loss of appetite
- ⇒ A fall in blood pressure or a rise in pulse rate
- ⇒ A fall with no previous history of falling



Section 2.0 Surveillance	Page 2 of 2
Subsection 2.3 Frequent Indicators of Infection in the Elderly	Issued 7/1/99

SURVEILLANCE**SYMPTOMS OF WORSENING CONDITION**

- ⇒ Unstable vital signs
- ⇒ Resident appears toxic, diaphoretic,
more confused, dyspneic or cyanotic
- ⇒ Unable to eat or drink

YES**(to any of the above)****Proceed To Action Plan and Continued Assessment**

- ⇒ Call physician. (If unable to access the primary physician, call 911)
- ⇒ Report all factors of your assessment.

Section 2.0 Surveillance	Page 2 of 2
Subsection 2.4 Symptoms of Worsening Condition	Issued 7/1/99